

## EAST Search History

| Ref # | Hits   | Search Query  | DBs  | Default Operator | Plurals | Time Stamp       |
|-------|--------|---|--|------------------|---------|------------------|
| S1    | 19     | ((WALTER) near2 (ETTER)).INV.   | US-PGPUB;<br>USPAT;<br>USOCR   | OR               | ON      | 2007/04/04 17:00 |
| S2    | 1262   | (chang\$3 or alter\$3 or switch\$3 or replac\$3 or modif\$4 or exchang\$3 or different) near4 gain near4 (paramet\$3 or criteri\$2) | US-PGPUB;<br>USPAT;<br>USOCR   | OR               | ON      | 2007/04/04 17:10 |
| S3    | 85214  | (speech or voice or vocal or acoustic\$2) near2 signal  | US-PGPUB;<br>USPAT;<br>USOCR   | OR               | ON      | 2007/04/04 17:01 |
| S4    | 364952 | cyclic\$2   | US-PGPUB;<br>USPAT;<br>USOCR   | OR               | ON      | 2007/04/05 11:00 |
| S5    | 4      | (increment\$4 or increas\$3 or enlarg\$3 or rais\$3) near5 (codebook or code\$1book) near5 gain near5 (index\$5 or indices)         | US-PGPUB;<br>USPAT;<br>USOCR   | OR               | ON      | 2007/04/04 17:01 |
| S6    | 1      | "6738733".pn.   | US-PGPUB;<br>USPAT;<br>USOCR   | OR               | ON      | 2007/04/04 17:02 |
| S7    | 2      | ("20060215860").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2007/04/04 17:02 |
| S8    | 3      | ("7110349").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2007/04/04 17:02 |
| S9    | 2      | ("5006992").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2007/04/04 17:02 |

## EAST Search History

|     |       |  |  |    |     |                  |
|-----|-------|--|--|----|-----|------------------|
| S10 | 2     | ("4920499").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/04/04 17:03 |
| S11 | 3     | ("5797118").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/04/04 17:09 |
| S12 | 2     | ("5784532").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/04/04 17:03 |
| S13 | 46286 | variable near2 rate  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/04/04 17:09 |
| S14 | 456   | S13 with gain  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/04/04 17:09 |
| S15 | 55613 | (chang\$3 or alter\$3 or switch\$3 or<br>replac\$3 or modif\$4 or exchang\$3<br>or different) near4 gain | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/04 17:16 |
| S16 | 151   | S14 and S15  | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/04 17:11 |
| S17 | 127   | S16 and (@ad<"20030930" or<br>@prad<"20030930" or<br>@rlad<"20030930")                                   | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/04 17:54 |
| S18 | 17    | S17 and (codebook or<br>code\$1book)   | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/04 17:12 |

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|     |       |  |  |    |     |                  |
|-----|-------|--|--|----|-----|------------------|
| S19 | 754   | (chang\$3 or alter\$3 or switch\$3 or replac\$3 or modif\$4 or exchang\$3 or different) near4 fixed near3 gain | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/05 10:06 |
| S20 | 30    | S19 and S13  | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/04 17:17 |
| S21 | 28    | S20 and (@ad<"20030930" or @prad<"20030930" or @rlad<"20030930")   | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/05 10:59 |
| S22 | 17197 | gain near4 (spread\$3 or dispers\$3 or separat\$3 or segment\$4 or divi\$4 or spars\$3)                        | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/04 17:47 |
| S23 | 2     | ("20050071155").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/04/04 17:53 |
| S24 | 542   | S22 same (frame or subframe or sub\$1frame)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/04/04 17:54 |
| S25 | 431   | S24 and (@ad<"20030930" or @prad<"20030930" or @rlad<"20030930")   | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/04 17:54 |
| S26 | 397   | S25 and signal   | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/04 17:55 |
| S27 | 171   | S26 and speech   | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/04 17:56 |
| S28 | 149   | S25 and (speech near2 signal)  | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON  | 2007/04/04 17:56 |

## EAST Search History

|     |     |  |                    |    |    |                  |
|-----|-----|--|--------------------|----|----|------------------|
| S29 | 100 | (US-20050071155-\$).did. or<br>(US-5699485-\$ or US-5274739-\$<br>or US-5909662-\$ or US-5664055-\$<br>or US-5732389-\$ or US-4980916-\$<br>or US-5313554-\$ or US-5457783-\$<br>or US-5659661-\$ or US-5787389-\$<br>or US-5797118-\$ or US-5875423-\$<br>or US-5893056-\$ or US-5915234-\$<br>or US-5966689-\$ or US-6006178-\$<br>or US-6052661-\$ or US-6202048-\$<br>or US-4963034-\$ or US-4969192-\$<br>or US-5007092-\$ or US-5060269-\$<br>or US-5195168-\$ or US-5230036-\$<br>or US-5233660-\$ or<br>US-5245662-\$).did. or<br>(US-5293449-\$ or US-5305332-\$<br>or US-5307441-\$ or US-5321793-\$<br>or US-5359696-\$ or US-5426718-\$<br>or US-5451951-\$ or US-5455888-\$<br>or US-5479559-\$ or US-5485581-\$<br>or US-5487128-\$ or US-5490230-\$<br>or US-5519807-\$ or US-5526464-\$<br>or US-5550543-\$ or US-5598504-\$<br>or US-5602961-\$ or US-5621853-\$<br>or US-5623575-\$ or US-5633980-\$<br>or US-5651090-\$ or US-5651091-\$<br>or US-5657418-\$ or US-5657419-\$<br>or US-5666464-\$ or US-5680507-\$<br>or US-5682407-\$).did. or<br>(US-5699477-\$ or US-5706395-\$<br>or US-5708756-\$ or US-5717824-\$<br>or US-5724480-\$ or US-5729655-\$<br>or US-5732188-\$ or US-5732390-\$<br>or US-5745871-\$ or US-5751903-\$<br>or US-5752223-\$ or US-5774838-\$<br>or US-5774840-\$ or US-5778334-\$<br>or US-5797119-\$ or US-5799271-\$<br>or US-5799131-\$ or US-5802109-\$<br>or US-5806024-\$ or US-5812966-\$<br>or US-5819215-\$ or US-5826226-\$<br>or US-5832180-\$ or US-5845243-\$<br>or US-5862518-\$ or US-5864797-\$<br>or US-5873060-\$).did. or<br>(US-5884252-\$ or US-5893061-\$<br>or US-5909663-\$ or US-5924063-\$<br>or US-5953697-\$ or US-5960389-\$<br>or US-5963896-\$ or US-6003001-\$<br>or US-6009395-\$ or US-6009388-\$<br>or US-6012024-\$ or US-6014622-\$<br>or US-6016468-\$ or US-6023672-\$<br>or US-6041298-\$ or<br>US-RE36646-\$ or US-6052660-\$<br>or US-6073092-\$ or<br>US-6094630-\$).did. | US-PGPUB;<br>USPAT | OR | ON | 2007/04/05 10:07 |
|-----|-----|--|--------------------|----|----|------------------|

## EAST Search History

|     |        |  |  |    |    |                  |
|-----|--------|--|--|----|----|------------------|
| S30 | 754    | (chang\$3 or alter\$3 or switch\$3 or replac\$3 or modif\$4 or exchang\$3 or different) near4 fixed near3 gain | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 10:07 |
| S31 | 5      | S29 and S30  | US-PGPUB;<br>USPAT   | OR | ON | 2007/04/05 10:58 |
| S32 | 4346   | gain near4 distribut\$3  | US-PGPUB;<br>USPAT   | OR | ON | 2007/04/05 10:58 |
| S33 | 3883   | S32 and (@ad<"20030930" or @prad<"20030930" or @rlad<"20030930")   | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 11:07 |
| S34 | 46332  | variable near2 rate  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/04/05 11:00 |
| S35 | 456    | S34 with gain  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/04/05 11:00 |
| S36 | 55660  | (chang\$3 or alter\$3 or switch\$3 or replac\$3 or modif\$4 or exchang\$3 or different) near4 gain             | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 13:49 |
| S37 | 151    | S35 and S36  | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 11:00 |
| S38 | 127    | S37 and (@ad<"20030930" or @prad<"20030930" or @rlad<"20030930")   | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 11:00 |
| S39 | 17     | S38 and (codebook or code\$1book)  | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 11:01 |
| S40 | 0      | S33 and S39  | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 11:01 |
| S41 | 3      | S33 and (codebook or code\$1book)  | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 11:04 |
| S42 | 494972 | S33 and fixed gain   | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 11:04 |

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|     |        |  |                              |    |    |                  |
|-----|--------|--|------------------------------|----|----|------------------|
| S43 | 45     | S32 same (frame or subframe or sub\$1frame)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 11:07 |
| S44 | 33     | S43 and (@ad<"20030930" or @prad<"20030930" or @rlad<"20030930")   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 12:02 |
| S45 | 28     | balanc\$3 near4 gain near4 (frame or subframe or sub\$1frame)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 11:57 |
| S46 | 22     | S45 and (@ad<"20030930" or @prad<"20030930" or @rlad<"20030930")   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 13:21 |
| S47 | 100    | (increas\$3 or increment\$3) near4 gain near3 (index\$3 or indices)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 12:25 |
| S48 | 78     | S47 and (@ad<"20030930" or @prad<"20030930" or @rlad<"20030930")   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 13:52 |
| S49 | 4      | S47 same (codebook or code\$1book)   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 12:06 |
| S50 | 761    | gain near4 (increas\$3 or increment\$3) near8 (dispers\$3 or distribut\$3 or spread\$3 or divi\$4 or spars\$3) | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 12:31 |
| S51 | 758    | S50 not S48  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 12:31 |
| S52 | 3      | S51 and (codebook or code\$1book)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 12:34 |
| S53 | 4572   | level near3 increment  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 13:20 |
| S54 | 498102 | S53 gain   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 13:20 |
| S55 | 1442   | S53 and gain   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 13:20 |
| S56 | 9      | S55 and codebook   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 13:20 |
| S57 | 8      | S56 and (@ad<"20030930" or @prad<"20030930" or @rlad<"20030930")   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2007/04/05 17:23 |

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|     |        |   |  |    |    |                  |
|-----|--------|---|--|----|----|------------------|
| S58 | 655551 | gsm and amr and codec and (level or volume) and increment amd gain    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/04/05 13:50 |
| S59 | 0      | S58 and coarse near5 quantization and "3.5dB" and (step or increment) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/04/05 13:51 |
| S60 | 269    | S58 and coarse near5 quantization and (step or increment)             | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/04/05 13:55 |
| S61 | 227    | S60 and (@ad<"20030930" or @prad<"20030930" or @rlad<"20030930")      | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 13:52 |
| S62 | 0      | S59 and gsm   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/04/05 13:56 |
| S63 | 0      | S59 and amr   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/04/05 13:56 |
| S64 | 15     | S60 and gsm   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/04/05 14:40 |

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|     |     |  |  |    |     |                  |
|-----|-----|--|--|----|-----|------------------|
| S65 | 75  | time-dispersed   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/04/05 14:59 |
| S66 | 1   | temporal near3 gain near3<br>dispersion                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/04/05 16:11 |
| S67 | 60  | (sub\$1frame or subframe) same<br>(cycle or cyclical) near3 period | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/04/05 16:14 |
| S68 | 7   | "6782360"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/04/05 17:02 |
| S69 | 2   | ("6581032").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/04/05 17:15 |
| S70 | 788 | (704/226).CCLS.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/04/05 17:20 |
| S71 | 770 | parameter with fixed with gain                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/04/05 17:20 |



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|     |     |  |  |    |    |                  |
|-----|-----|--|--|----|----|------------------|
| S72 | 221 | parameter with fixed with gain with codebook   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/04/05 17:21 |
| S73 | 24  | parameter with fixed with gain with codebook with may  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/04/05 17:21 |
| S74 | 19  | S73 and (@ad<"20030930" or @prad<"20030930" or @rlad<"20030930")   | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 17:44 |
| S75 | 39  | different with gain with (subframe or sub\$1frame)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/04/05 17:44 |
| S76 | 27  | S75 and (@ad<"20030930" or @prad<"20030930" or @rlad<"20030930")   | US-PGPUB;<br>USPAT;<br>USOCR   | OR | ON | 2007/04/05 17:44 |
| S77 | 24  | (US-20050071155-\$ or US-20050143987-\$ or US-20040242174-\$ or US-20030103579-\$ or US-20050053130-\$ or US-20060159427-\$ or US-20040027317-\$ or US-20060224389-\$ or US-20040158463-\$ or US-20030200092-\$).did. or (US-6738733-\$ or US-5797118-\$ or US-6961698-\$ or US-6721368-\$ or US-5960389-\$ or US-6493333-\$ or US-6691082-\$ or US-4694453-\$ or US-6581032-\$ or US-6240385-\$ or US-6577606-\$ or US-6563807-\$ or US-5719993-\$ or US-5657418-\$).did. | US-PGPUB;<br>USPAT   | OR | ON | 2007/04/09 10:01 |
| S78 | 19  | S77 and level  | US-PGPUB;<br>USPAT   | OR | ON | 2007/04/09 10:02 |
| S79 | 7   | S77 and volume   | US-PGPUB;<br>USPAT   | OR | ON | 2007/04/09 10:01 |

## EAST Search History

|     |    |   |  |    |     |                  |
|-----|----|---|--|----|-----|------------------|
| S80 | 17 | S77 and fixed   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/04/09 11:08 |
| S81 | 24 | (US-20050071155-\$ or<br>US-20050143987-\$ or<br>US-20040242174-\$ or<br>US-20030103579-\$ or<br>US-20060159427-\$ or<br>US-20040027317-\$ or<br>US-20050053130-\$ or<br>US-20060224389-\$ or<br>US-20040158463-\$ or<br>US-20030200092-\$).did. or<br>(US-5797118-\$ or US-6240385-\$<br>or US-5719993-\$ or US-5657418-\$<br>or US-6493333-\$ or US-6738733-\$<br>or US-6691082-\$ or US-4694453-\$<br>or US-6577606-\$ or US-6563807-\$<br>or US-6961698-\$ or US-6721368-\$<br>or US-5960389-\$ or<br>US-6581032-\$).did. | US-PGPUB;<br>USPAT   | OR | ON  | 2007/04/09 14:48 |
| S82 | 17 | S81 and fixed   | US-PGPUB;<br>USPAT   | OR | ON  | 2007/04/09 17:25 |
| S83 | 2  | ("5970442").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/04/10 09:44 |
| S84 | 2  | ("6438518").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/04/10 12:44 |
| S85 | 2  | ("20040184537").PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/04/10 12:45 |

## EAST Search History

|     |   |                     |  |    |     |                  |
|-----|---|---------------------|--|----|-----|------------------|
| S86 | 2 | ("20040243404").PN. | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/07/03 18:57 |
|-----|---|---------------------|--|----|-----|------------------|